

Argon Shielded Arc Welding of Tantalum

SOV/135-59-8-2/24

talu[m], were utilized. The welding current, the arc voltage, and the diameter of the wolfram electrode were determined by the strength of the welding samples. The shielding of the front and back side of the seam was attained by using burners, welding heads and fixtures, which are usually taken in welding titanium. The working data of the welding are given in table 3. The quality of the welded joints was controlled by surface tests and X-ray photography, which was used for a strength up to 2.0 mm. If the plates were thicker than 2 mm, they were radiographed with gamma-rays of the radioactive material thulium 170. The best results were obtained with argon which contained 0.01% of nitrogen and carbon. The mechanical qualities of the weldings were determined on standardized samples. Breaking and bending tests were carried out and the corrosive qualities of the welds determined. The tests showed, that the durability and the bending angle of the weld were equal to the durability and the bending angle of the basic metal in non-chilled condition. The plasticity of the welds was tested by

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hammering on the welding seams. The metallographic inspection of the welded joints and of the adjacent zones showed that a coarse crystalline structure is formed in the seam. The size of the grain decreases with the distance from the joint. At a distance of 3-5 mm from the seam the metal is finely granulated. The resistance to corrosion of the basic material and of the tantalum welds was determined with samples which were put into tightly soldered glass ampoules filled with nitric acid of 32% and sulphuric acid of 20% concentration. The results of the corrosion tests showed that the welds resisted corrosion in this solution. The corrosion in the welds did not exceed that of the whole sample, and the mechanical qualities practically do not change at all. The investigation permits the following conclusions: it is well possible to weld tantalum with an unmeltable electrode of argon within direct current and with negative poling of the electrode. Welding with tantalum it is necessary to shield the weld from influences of the atmosphere on front and back side. The

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outside is shielded by pure argon of 99.98% concentration, which comes out of the welding head. The backside of the welded joint is shielded by admitting argon over a grooved shim. There are 6 tables, 4 photographs and 6 references, 3 of which are Soviet and 3 English.

Card 5/5

ЧЕРНОВ, В.Ф.; СМОЛ'НИКОВ, С.Г.; ПОЛИАКОВ, Я.Я.

Caustic soda by the ferrite method. Patent U.S.S.R. 77,925, Dec. 31, 1949.
(GA 47 no.20:10815 '53)

POLYAKOV, Ye., master remeslennogo uchilishcha

Assembly-line production in a school? Prof.-tekhn.obr.
17 no.5:12-13 My '60. (MIRA 13:7)
(Technical education)

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POLYAKOV, Ye.A.

Equivalent electric scheme of the electrode. Prikl. geofiz. no.23:
217-225 '59. (MIRA 13:1)
(Electric prospecting)

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PolyAKov / H.E.A.

3(5,6) PHASE I BOOK EXPLOITATION

SOV/2899

Vsesoyuzny nauchno-issledovatel'skiy institut geofizicheskikh metodov
prirodovedci

Fridzadnaya geoteknika; sbornik statey, vyp. 23 (Applied geophysics;
Collection of Articles, No. 23) Moscow, Gostoptekhnizdat, 1959.
212 p., 3,500 copies printed.

Ed.: M.K. Polenkov; Exec. Ed.: M.M. Ruzmina; Tech. Ed.: A. S.
Polozina.

PURPOSE: This book is intended for scientific, engineering, and technical personnel of industrial geophysical exploration services.

COVERAGE: This is a collection of 14 articles by various authors on aspects of geophysical exploration. The material treated in the articles may be divided into four categories: the physical properties of rocks in specific geological regions; methods and techniques used in industrial geophysical exploration; concepts in the theory of electrical exploration, and the economics involved in geophysical operations. Specifically, the authors discuss the geologic structures of the central parts of the Russian Platform, southwestern Turkmenia, the West Siberian Plains, the eastern part of the Siberian Platform, and the Minusinsk basin; electrical frequency soundings; neutron logging; gamma spectrometry techniques, and the standard equipment and installations of the geophysical services of the petroleum industry in the USSR. References accompany each article.

Mikolayevsky, A. A. Density Characteristics of the Geological Profile of the Eastern Part of the Siberian Platform 112

Dalakionov, A.B. Density of Sedimentary Beds of Ustyurt 127

Tarkov, A.P. Nature of the Anomalous Gravitational Field of the Minusinsk Basins 136

Feigin, A.Ya. Methods of Solving Problems in Neutron Logging 141

Kantor, S.A. The Effect of the Diameter of a Borehole on Instrument Readings in Neutron-Neutron Logging 174

Medosup, G.A., P.M. Prokof'yev, A.I. Khoklin, and A.P. Tsvitovich. Use of Differential Gamma-Spectrometry in Petroleum Geology 193

Vonkonnik, N.L. The Speed of Electrical Logging in Combined Measurements With an Arbitrary Division of Channels 202

Solntsev, Iu. A. An Equivalent Electrical Schematic for an Electrode 217

Abb. I.L., V.N. Zaporozhets, R.I. Plotnikov, and L.A. Kunitsky. Some Problems in the Design of a Borehole Neutron Generator 226

Kolov, F.T. Basic Assets of the Geophysical Services in the Petroleum Industry of the USSR 231

AVAILABLE: Library of Congress

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Card 1/1

POLYAKOV, Ye.A.

Investigating the electric resistance of an NaCl aqueous solution
at high pressure and temperature. Neftegaz. geol. i geofiz.
no.10:35-37 '64 (MIRA 18:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut geofizicheskikh
metodov razvedki.

POLYAKOV, Ye.A.

Some properties of algebras of recursive functions. Uch.zap.Ivan.
gos.ped.inst. 34:46-51 '64. (MIRA 18:4)

POLYAKOV, Ye.A.

Selecting the type of land transportation in north eastern
U.S.S.R. Geog. i khoz. no.12:49-54 '63. (MIRA 16:12)

POLYAKOV, Ye.A.

New types of apparatus for resistivity measurement in wells.
Prikl. geofiz. no.20:221-233 '57. (MIRA 11:11)
(Oil well logging, Electric—Equipment and supplies)

POLYAKOV, Ye.A.

Theory of wireless transmission of electric signals from the well face
to the surface during boring. Prikl. geofiz. no.32:142-154 '62.
(MIRA 15:7)

(Electric prospecting)

POLYAKOV, Ye. A.

"New Types of Borehole Resistometers."

p. 221 in book Applied Geophysics; Collection of Articles, No. 3, Moscow
(geotekhnika, 1954), 267p.

These articles are concerned with the methodology of interpreting the results of gravimetric, seismic and electrical surveys. Review the collecting properties of rocks on the basis of data obtained from resistometers and the application of charged particle accelerators in well logging.

I. 07995-67 EWT(d) IJP(c)
ACC NR: A7001670

SOURCE CODE: UR/0199/66/007/003/0720/0723

AUTHOR: Polyakov, Ye. A.

ORG: none

TITLE: Some properties of algebras of recursive functions

SOURCE: Sibirskiy matematicheskiy zhurnal, v. 7, no. 3, 1966, 720-723

TOPIC TAGS: iteration, algebra

ABSTRACT: In the article numbers are understood to be natural numbers. $N = \{0, 1, 2, \dots\}$. Let Φ_p be the aggregate of all one-place partial functions defined on N and with values in N . The aggregate of all functions of Φ_p everywhere-defined are denoted by Φ . The symbols $+$, $*$, i , -1 denote the operations of addition, superposition, iteration, and inversion respectively. The article shows that (1) any non-integral congruence of the algebra $\mathcal{U} = \langle \Phi; *, i \rangle$ is a congruence of infinite index; (2) the algebra $\mathcal{U} = \langle \Phi; *, i \rangle$ does not have nontrivial endomorphisms; (3) nontrivial endomorphisms exist for the algebra $\mathcal{U} = \langle \Phi_4; *, -1 \rangle$ and (4) the algebra $\mathcal{U} = \langle \Phi; +, *, i \rangle$ has a continuum of pairwise nonisomorphic subalgebras. Orig. art. has: 3 formulas. [JPRS: 37,751]

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Card 1/1

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FD-36 (Rev. 7-25-64)

1. GAPONENKO, G. V., Candidate of Technical Sciences
POLYAKOV, Ye. G., Engineer

2. USSR (600)

ENIMS (Experimental Scientific-Research Institute of Metal-Cutting Machine Tools)
"New Designs of Spindles" Stanki i Instrument, 12, No. 4, 1941.

9. [REDACTED] Report U-1503, 4 Oct 1951

USSR/Farm Animals. Small Horned Stock.

Q

Abstr Jour: Ref Zhur-Biol., No 20, 1958, 92584.

Author : Polyakov, E.M., Shvayko, V.F.

Inst : Stavropol Agricultural Institute.

Title : Anatomy of Certain Arterial Vessels in the Intercalary
Section of the Systemic Circulation in Soviet Merino
Sheep.

Orig Pub: Sb. nauchno-issled. rabot. stud. Stavropol'sk. s.-kh.
in-ta, 1956, vyp. 4, 102-103.

Abstract: It was demonstrated in 6 sheep that the splanchnic and anterior mesenteric arteries leave the abdominal aorta by a common trunk, 0.8 - 5 cm long. The posterior mesenteric artery usually leaves the abdominal aorta independently at the level of the posterior limbus of the sixth lumbar vertebra. The diaphragmatic caudal arteries

Card : 1/2

59

POLYAKOV, Ye.

Remuneration for work stoppages and waste. Sov.profsoiuz 7
no.21:35-36 N '59. (MIRA 12:12)

1. Zamestitel' presedatelya postroykoma №.219 tresta "Mosotdel-
stry" №.3 Glavmosstroya.
(Wages)

POLYAKOV, Ye.A.

Methodology for selecting the optimum type of land transportation for the northeastern U.S.S.R. Prob. Sev. no.5:
84-106 '63. (MIRA 16:11)

1. Institut kompleksnykh transportnykh problem Gosplana
SSSR.

POLYAKOV, Yevgeniy Alekseyevich; STANISLAVYUK, V.L., kand. tekhn. nauk, otv. red.; DOBShITS, M.L., red.izd-va; YEGOROVA, N.F., tekhn. red.

[Comparative efficiency of various types of transportation in the underdeveloped regions of the U.S.S.R.] Srovnitel'naia effektivnost' razlichnykh vidov transporta v maloosvoennykh raionakh SSSR. Moskva, Izd-vo AN SSSR, 1963. 117 p.

(MIRA 16:12)

(Transportation--Cost of operation)

POLYAKOV, Ye. (Lugansk)

For safety in underground haulage. Sov.shakht. 12 no.12:30 D '63.
(MIRA 17:3)

POLYAKOV, Ye.G.

Modern trends in foreign foundry practice. Lit,prcizv. no.11:43-
48 N '62. (MIRA 15:12)
(Founding)

POLYAKOV, Ye., kand.tekhn.nauk

Building additional stories on apartment houses. Zhil.-kom.khoz.
9 no.6:7-8 '59. (MIRA 12:10)
(Apartment houses)

POLYAKOV, Ye.I.

Experimental investigation of turbulent streams with axial symmetry.
Zhur. tekhn. fiz. 30 no.10:1238-1244 O '60. (MIRA 13:10)
(Hydrodynamics)

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POLYAKOV, Ye.I.(Ryazan')

Simple method for model studies of air streams. Vod.1
san.tekh. no.7:20-21 Je '60. (MIRA 13:?)
(Fluid dynamics)

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CIA-RDP86-00513R001342010017-2"

STAKHANOV, Aleksandr Ivanovich, gornyy inzh.; POLYAKOV, Ye.M., gornyy
inzh.; ALEKSEYEV, N.M., tekhn.red.

[Fight against the formation of dust in mines of the Lugansk
Economic Council] Opyt bor'by s pyleobrazovaniem na
shakhtakh Inganskogo sovnarkhoza. Lugansk, Luganskoе obl.
pravlenie nanchno-tekhn.gornogo ob-va, 1960. 34 p.

(MIRA 14:11)

(Lugansk Province--Mine dusts)

POLYAKOV, Ye.M.

The introduction of new equipment guarantees labor safety.
Bezop. truda v prom. 8 no.9s15-18 S '64 (MIRA 18:1)

1. Upravleniye Luchanskogo okruga Gosudarstvennogo komiteta pri
ovete Ministrov UkrSSR po nadzoru za bezopasnym vedeniyem rabot
v promyshlennosti i gornomu nadzoru.

POLYAKOV, Ye.M., inzh.

Machines and equipment providing greater labor safety. Ugol'. prom,
no.6:69-70 N-D '62. (MIRA 16:2)

1. Luganskiy okrug Gosudarstvennogo komiteta pri Sovete Ministrov
UkrSSR po nadzoru za bezopasnym vedeniyem rabot v promyshlennosti i
gornomy nadzoru.
(Lugansk Province—Mine haulage—Safety appliances)

POLYAKOV, Ye.M., inzh.

Causes of pipe breaking in shafts of the No.42 mine of the
Donets-Basin Anthracite Combine. Bezop.truda v prom. 4 no.2:
8-9 F '60. (MIRA 13:5)

1. Upravleniye Luganskogo okruga Gosgortekhnadzora USSR.
(Donets Basin--Coal mines and mining--Accidents)

POLYAKOV, Ye.M.

Pay attention to the ventilation of blind workings. Bezop. truda
v prom. 8 no.10;3 O '64. (MIRA 17:11)

1. Upravleniye Luganskogo okruga Gosudarstvennogo komiteta pri
Sovete Ministrov UkrSSR po nadzoru za bezopasnym vedeniyem rabot
v promyshlennosti i gornomu nadzoru.

DRINBERG, Anatoliy Yakovlevich, doktor tekhnicheskikh nauk; GOLANT, Shaya Nakhimovich, kandidat tekhnicheskikh nauk; POLYAKOV, Ye. P., redaktor; BASHKIROV, L.G., redaktor izdatel'stva; KONYASHINA, A., tekhnicheskiy redaktor

[Painting building facades] Okraska fasadov zdanii. Izd. 2-ee, ispr. i perer. Moskva, Izd-vo Ministerstva kommunal'nogo khoziaistva RSFSR, 1956. 127 p. (MLRA 10:1)
(House painting)

POLYAKOV, Ye.S.

Use of the PKS-20 steam-heated conveyer dryer in the macaroni industry. Khleb. i kond. prom. l no.9:23-26 S '57. (MIRA 10:11)

1. Upravleniye promyshlennost'yu prodovol'skvennykh tovarov Mosgorsovmarkhoza.

(Macaroni) (Drying apparatus)

POLYAKOV, Ye.S.
ANDREYEV, A.B.; ANTONOV, A.I.; ARAPOV, P.P.; BARMASH, A.I.; BEONYAKOVA,
A.B.; BENIN, G.S.; BIKHSEMEVICH, V.V.; BERNSTEIN, S.A.; BITYUTSKOV,
V.I.; BLYUMENBERG, V.V.; BONCH-BEUYEVICH, M.D.; BORMOTOV, A.D.;
BULGAKOV, N.I.; VEKSLER, B.A.; GAVRILENKO, I.V.; GENDLER, Ye.S..
[deceased]; GERLIVANOV, N.A., [deceased]; GIBSHMAN, Ye.Ye.;
GOLDOVSKIY, Ye.M.; GORBUNOV, P.P.; GORYAINOV, F.A.; GRINBERG, B.G.;
GRYUMER, V.S.; DANOVSKIY, N.F.; DZEVUL'SKIY, V.M., [deceased];
DREMAYLO, P.G.; DYBITS, S.G.; D'YACHENKO, P.F.; DYURMBAUM, N.S..
[deceased]; YEGORCHENKO, B.F. [deceased]; YEL'YASHKEVICH, S.A.;
ZHEREROV, L.P.; ZAVEL'SKIY, A.S.; ZAVEL'SKIY, F.S.; IVANOVSKIY,
S.R.; ITKIN, I.M.; KAZHDAN, A.Ya.; KAZHINSKIY, B.B.; KAPLINSKIY, S.V.;
KASATKIN, F.S.; KATSUROV, I.N.; KITAYGORODSKIY, I.I.; KOLESNIKOV,
I.F.; KOLOSOV, V.A.; KOMAROV, N.S.; KOTOV, B.I.; LINDE, V.V.;
LEBEDEV, H.V.; LEVITSKIY, N.I.; LOKSHIN, Ya.Yu.; LUUTSAU, V.K.;
MANNERBERGER, A.A.; MIKHAYLOV, V.A.; MIKHAYLOV, N.M.; MURAV'YEV, I.M.;
NYDEL'MAN, G.E.; PAVLYSHKOV, L.S.; POLUYANOV, V.A.; POLYAKOV, Ye.S.;
POPOV, V.V.; POPOV, N.I.; RAKHLIN, I.Ye.; RZHEVSKIY, V.V.; ROZENBERG,
G.V.; ROZENTRETER, B.A.; ROKOTIAN, Ye.S.; RUKAVISHNIKOV, V.I.;
RUTOVSKIY, B.N. [deceased]; RYVKIN, P.M.; SMIRNOV, A.P.; STEPANOV, G.Yu.,
STEPANOV, Yu.A.; TARASOV, L.Ya.; TOKAREV, L.I.; USPASSKIY, P.P.;
FEDOROV, A.V.; PERE, N.E.; FRENKEL', N.Z.; KHAYFETS, S.Ya.; KHILOPIN,
M.I.; KHODOT, V.V.; SHAMSHUR, V.I.; SHAPIRO, A.Ye.; SHATSOV, N.I.;
SHISHKINA, N.N.; SHOR, E.R.; SHPICHENETSKIY, Ye.S.; SHPRINK, B.E.;
SHTERLING, S.Z.; SHUTTY, L.R.; SHUKHGALETTER, L. Ya.; KRYAVIS, A.V.;

(Continued on next card)

ANDREYEV, A.B. (continued) Card 2.

YAKOVLEV, A.V.; ANDREYEV, Ye.S., retsenzent, redaktor; BERNER,
GYIM, B.M., retsenzent, redaktor; BIRMAN, L.D., retsenzent, redaktor;
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DEGTYAREV, I.L., retsenzent, redaktor; DEM'YANYUK, F.S., retsenzent;
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retsenzent, redaktor; ZHEMOCHKIN, D.N., retsenzent, redaktor;
SHURAVCHENKO, A.N., retsenzent, redaktor; ZLODEYEV, G.A., retsenzent,
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retsenzent, redaktor; LEVINSON, L.Ye., [deceased] retsenzent, redaktor;
MALOV, N.N., retsenzent, redaktor; MARKUS, V.A. retsenzent, redaktor;
METELITSYN, I.I., retsenzent, redaktor; MIKHAYLOV, S.M., retsenzent;
redaktor; OLIVETSKIY, B.A., retsenzent, redaktor; PAVLOV, B.A.,
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I.N., retsenzent, redaktor; RAKOV, K.A. retsenzent, redaktor;
RZHAVINSKIY, V.V., retsenzent, redaktor; RINBERG, A.M., retsenzent;
redaktor; ROGOVIN, N. Ye., retsenzent, redaktor; HUDEJKO, K.G.,
retsenzent, redaktor; RUTOVSKIY, B.N., [deceased] retsenzent,
redaktor; RYZHOV, P.A., retsenzent, redaktor; SANDOMIRSKIY, V.B.,
retsenzent, redaktor; SKRAMTAYEV, B.G., retsenzent, redaktor;
SOKOV, V.S., retsenzent, redaktor; SOKOLOV, N.S., retsenzent,
redaktor; SPIVAKOVSKIY, A.O., retsenzent, redaktor; STRAMENTOV, A.Ye.,
retsenzent, redaktor; STRELTSKIY, N.S., retsenzent, redaktor;

(Continued on next card)

ANDREYEV, A.V.,(continued) Card 3.

TRET'YAKOV, A.P., retsenzent, redaktor; FAYERMAN, Ye.M., retsenzent, redaktor; KHACHATYROV, T.S., retsenzent, redaktor; CHERNOV, H.V., retsenzent, redaktor; SHERGIN, A.P., retsenzent, redaktor; SHESTOPAL, V.M., retsenzent, redaktor; SHESHKO, Ye.F., retsenzent, redaktor; SHCHAPOV, N.M., retsenzent, redaktor; YAKOBSON, M.O., retsenzent, redaktor; STEPANOV, Yu.A., Professor, redaktor; DEM'YANYUK, F.S., professor, redaktor; ZNAMENSKIY, A.A., inzhener, redaktor; PLAKSIN, I.N., redaktor; RUTOVSKIY, B.N. [deceased] doktor khimicheskikh nauk, professor, redaktor; SHUKHGAL'TER, L. Ya, kandidat tekhnicheskikh nauk, dotsent, redaktor; BRESTINA, B.S., redaktor; ZNAMENSKIY, A.A., redaktor.

(Continued on next card)

ANDREYEV, A.V. (continued) Card 4.

[Concise polytechnical dictionary] Kratkiy politekhnicheskii slovar'. Redaktsionnyi sovet; I.U.A. Stepanov i dr. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1955. 1136 p. (MLRA 8:12)

1. Chlen-korrespondent AN SSSR (for Plaksin)
(Technology--Dictionaries)

POLYAKOV, Ye.S.

Macaroni factories of the Main Administration of the Macaroni Industry of the R.S.F.S.R. in the sixth five-year plan. Khleb. 1 kond. prom. 1 no.4:3-5 Ap '57. (MLRA 10:5)

1. Glavnoye upravleniye makaronnoy promyshlennosti RSFSR.
(Macaroni)

STARIKOVICH, S.K.; POLYAKOV, Ya.S., spetsred.; MURASHEVA, O.I., red.;
KISINA, Ye.I., tekhn.red.

[Continuous production-line methods in manufacturing short
macaroni products] Potochnye linii proizvodstva korotkore-
zanykh makaronnykh izdelii. Moskva, Pishchepromizdat, 1957.
(MIRA 12:11)

(Macaroni)

POLYAKOV, Ye.S.; MINYAYEV, I.N.; BADALYAN, Kh.A.; LUK'YANOV, V.V., doktor
tekhnicheskikh nauk, professor, retsenzent; NAZAROV, N.I., kandi-
dat tekhnicheskikh nauk, dotsent; spetsredaktor; KUDAYEVA, V.K.,
redaktor; DUBOVKINA, N.A., tekhnicheskiy redaktor

[Macaroni plant equipment] Oborudovanie makaronnogo proizvodstva.
Moskva, Pishchepromizdat, 1954. 105 p. (MLRA 8:7)
(Macaroni) (Food industry--Equipment and supplies)

POLYAKOV, Ye. V., Engineer

"Rational Methods of Putting on Addition on Houses." Sub 27 Feb 51, Academy of
Communal Economy imeni K. D. Pamfilov

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

NOVOCHADOV, A.G., redaktor; IVANOV, I.T., kandidat tekhnicheskikh nauk, redaktor; SOFINSKIY, I.D., inzhener-arkhitektor, redaktor; KOZLOV, N.A., inzhener, redaktor; GELIN, M.M., inzhener, redaktor; POLYAKOV, Ye.V., kandidat tekhnicheskikh nauk; redaktor; KRYUCHKOV, N.V., kandidat tekhnicheskikh nauk, redaktor; KONYASHINA, A., tekhnicheskiy redaktor

[Rules governing the technical operation of dwellings] Pravila tekhnicheskoi ekspluatatsii zhilykh zdanii. Moskva, Izd-vo Ministerstva kommunal'nogo khozyaistva RSFSR, 1954. 139 p. (MLR 8;6)

1. Direktor Akademii communal'nogo khozyaistva im. K.D.Pamfilova (for Ivanov). 2. Nachal'nik Glavnogo upravleniya zhilishchnogo khozyaistva Ministerstva communal'nogo khozyaistva RSFSR (for Sofinskiy). 3. Glavnyy inzhener Zhilishchnogo upravleniya Ispolkomata Mossoveta (for Kozlov). 4. Glavnyy inzhener Frunzenskogo tresta Upravleniya kspital'nogo remonta Ispolkomata Mossoveta (for Gelin). 5. Rukovoditel' Sektora ekspluatatsii zhilykh i communal'nykh zdaniy Akademii communal'nogo khozyaistva (for Polyakov). 6. Starshiy nauchnyy sotrudnik Akademii communal'nogo khozyaistva (for Kryuchkov). 7. Russia (1917- R.S.F.S.R.) Ministerstvo communal'nogo khozyaistva.

(Dwellings)

Div. Sector Open Dwellings

POLYAKOV, Ye.V., kandidat tekhnicheskikh nauk; CHEREMISOV, K.M., inzhener.

Durability of roofing made of cast iron plates. Stroi.prom. 32 no.6:
36-40 Je '54. (MLRA 7:6)

1. Akademiya komunal'nogo khozyaystva im. K.D.Pamfilova.
(Roofing, Iron and steel)

POLYAKOV, YE. V.

IVANOV, I.T., kandidat tekhnicheskikh nauk; Polyakov, Ye.V., kandidat tekhnicheskikh nauk.

House moving without dismantling. Stroi.prom.32 no.11:22-24
B '54. (MLRA 7:11)

1. Akademiya kommunal'nogo khozyaystva im.K.D. Pamfilova.
(Moving of building, bridges, etc.)

DUMASHOV, Yu.F.; POLYAKOV, Ye.V., kandidat tekhnicheskikh nauk.

Repairing building façades in winter. Gor.khoz. Mosk. 29 no.11:
14-17 N '55. (MLRA 9:3)

(Plastering)

POLYAKOV, Ye.V., dots., kand. tekhn. nauk; BORODIN, I.V., prof.,
~~doktor~~ tekhn. nauk, retsenzent; RUFEL', N.A., prof.,
retsenzent; KHIMUNIN, S.D., kand. tekhn. nauk,
retsenzent; DUMASHOV, Yu.F., inzh., retsenzent; IVANOV,
I.T., kand. tekhn. nauk, nauchn. red.; ISEYEVA, R.Kh., red.

[Reconstruction and repair of apartment houses] Rekon-
struktsia i remont zhilykh zdaniy. Moskva, Stroizdat,
1964. 200 p. (MIRA 17:12)

KRICHEVSKIY, I.R.; YEFREMOVA, G.D.; PRYANIKOVA, R.O.; POLYAKOV, Ye.V.

Phase and volume relationships in the system acetic acid-butane. Khim. prom. no.7:491-502 J1 '61. (MIRA 14:7)
(Acetic acid)
(Butane)

LYSOVA, Aleksandra Ivanovna, kand. tekhn. nauk; POLYAKOV, Ye.V., red.;
BUTT, V.P., red. izd-va; LELYUKHIN, A.A., tekhn. red.

[Factory-made roof elements for major repair of buildings] Industrial'nye konstruktsii krysh dlja kapital'nogo remonta zdanii. Moskva, Izd-vo M-va kommun. khoz. RSFSR, 1961. 131 p.
(MIRA 15:6)

(Apartment houses—Maintenance and repair) (Roofing)

POLYAKOV, Yevgeniy Vladimirovich, kand. tekhn. nauk; BELYAYEV, Adil' Bakiyevich, inzh.; ZAMYSHLYAYEVA, I.M., red.izd-va; LELYUKHIN, A.A., tekhn. red.

[Precast reinforced concrete roofs for the major repair of apartment houses] Perekrytiia iz sbornogo zhelezobetona dlja kapital'nogo remonta zhilykh domov. Moskva, Izd-vo M-va kom-mun.khoz.RSFSR, 1962. 101 p. (MIRA 16:3)

(Roofing, Concrete)
(Apartment houses—Maintenance and repair)

DUMASHOV, Yu.F., inzh., red.; IVANOV, I.T., kand. tekhn. nauk; MARCHENKO, V.T., inzh.; POLYAKOV, Ye.V., kand. tekhn nauk, dotsent; KHIMUNIN, S.D., kand. tekhn. nauk; ZAMYSHLYEYEVA, I.M., red. izd-va; NAZAROVA, A.S., tekhn. red.

[Standards and norms for the maintenance of residential buildings]
Pravila i normy tekhnicheskoi ekspluatatsii zhilishchnogo fonda.
Moskva, 1961. 183 p.
(MIRA 14:7)

1. Russia (1917- R.S.F.S.R.) Ministerstvo kommunal'nogo khozyaystva . 2. Glavnnyy inzhener Upravleniya zhilishchnogo khozyaystva Ministerstva kommunal'nogo khozyaystva RSFSR (for Dumashov). 3. Direktor Akademii kommunal'nogo khozyaystva im. K.D.Pamfilova (for Ivanov). 4. Glavnnyy inzhener Zhilishchnogo upravleniya ispolkoma Mossoweta (for Marchenko). 5. Moskovskiy inzhenerno-stroitel'nyy institut im. V.V.Kuybysheva (for Polyakov). 6. Zaveduyushchiy laboratoriye kapital'nogo remonta zhilykh domov Leningradskogo nauchno-issledovatel'skogo instituta Akademii kommunal'nogo khozyaystva (for Khimunin)

(Dwellings—Maintenance and repair)

POLYAKOV, Yevgeniy Vladimirovich, dotsent, kand.tekhn.nauk; LYSOVA,
A.I., kand.tekhn.nauk; DUMASHOV, Yu.F., red.; VARGANOVA, A.N.,
red.izd-va; SALAZKOV, N.P., tekhn.red.

[Using precast reinforced-concrete floors in making major repairs
and reconstructing apartment houses] Perekrytiia iz sbornogo
zhelezobetona pri kapital'nom remonte i rekonstruktsii zhilykh
zdanii. Moskva, Izd-vo M-va kommun.khoz.RSFSR, 1960. 149 p.
(MIRA 13:11)

(Precast concrete construction)
(Apartment houses--Maintenance and repair)

YEIDRIGEVICH, Ye.V.; POLYAKOV, Ye.V.

Effect of age of parents on the quality of offsprings in cattle
of Alatau breed. Zh. obsh. biol., Moskva 14 no.6:435-440 Nov-Dec
1953. (CIML 25:4)

L 09122-67 EWT(d)/EWT(m)/EWP(w) IJP(c) EM
ACC NR: AP6032139 SOURCE CODE: UR/0121/66/000/007/0019/0021

38

AUTHOR: Dolgov, V. A.; Basik, V. S.; Entin, I. Z.; Yefimov, A. N.; Polyakov, Ye. Ye.

ORG: None

TITLE: Studying the stressed state of machine tool frame members by the photoelastic method

SOURCE: Stanki i instrument, no. 7, 1966, 19-21

TOPIC TAGS: photoelasticity, stress analysis, machine tool

ABSTRACT: The authors use the optical method for studying the stressed state of roll-turning lathe beds. This method can also be used for studying the overall stressed state of such a machine. This method makes it possible to determine experimentally the isoclinic parameter and main tangential stresses at a given point in the two-dimensional model of a cross section of the frame and to evaluate normal stresses on unloaded contours. "Stress division" is used to determine normal stresses at points lying within the cross section contour with respect to the isoclinic parameter and the main stress differences. This method is very useful for the experimental determination and selection of the optimum shape for the cross section of the bed. Orig. art. has: 3 figures.

SUB CODE: 13/ SUBM DATE: None/ ORIG REF: 004

UDC: 621.9-216.6:539.319.001.5

Card 1/1 net

POLYAKOV, Yu.

107-57-5-56/63

AUTHOR: Klepov, A., Polyakov, Yu.

TITLE: Relaxation Oscillators with Cold-Cathode Thyratrons
(Generatory relaksatsionnykh kolebaniy na "kholodnykh" tiratronakh)

PERIODICAL: Radio, 1957, Nr 5, pp 56-58 (USSR)

ABSTRACT: Application of cold-cathode thyratrons in relaxation oscillators has the advantage of much lower power consumption, e.g., an electron-tube multivibrator would consume 2-3 w while a similar multivibrator with cold-cathode thyratrons consumes only about 0.1 w. The article describes five circuits of multivibrators. Physical phenomena in a simple binary cell and also in a slave multivibrator are examined in some detail. Two circuits (3v and 3g) illustrate self-excited multivibrators whose operation is also explained. Soviet make type MTKh-90 cold-cathode thyratron is considered in all circuits.

There are 3 figures.

AVAILABLE: Library of Congress

(Abstractor's Note: The tube in question is a cold-cathode electrode-controlled gas tube sometimes referred to as a "cold-cathode relay tube" in US publications).

Card 1/1

CIRCUITS & CIRCUIT ELEMENTS

"Cold Thyratron Relaxation Oscillators," by A. Klopov, Yu. Polyakov,
Radio, No 5, May 1957, pp 56-58.

The use of thyratrons with "cold" cathodes (so-called "cold" thyratrons) in a variety of relaxation oscillators (multivibrators) compared with circuits employing tubes with filaments, is advantageous because of the lower power consumption. This is due not only to the absence of a filament circuit, but also to the low internal resistance of the thyratron in the conducting state. For example, a typical vacuum-tube multivibrator consumes on the order of 2-3 watts of power while one employing "cold" thyratrons would consume only 0.1 watts.

The article is devoted to an analysis of a variety of multivibrator circuits employing this type of tube.

Card 1/1

- 6 -

POLYAKOV, Yu., kand. tekhn. nauk, dotsent

Operation of main engines on the "Raketa" and "Metacr" type motor ships. Rech. transp. 21 no.8:24 Ag '62. (MIRA 18:9)

LAVROV, M.; POLYAKOV, Yu.

Two eclipsing variable stars. Astron. tsir. no.188:25-26 Ja '58.
(MIRA 11:6)

1. Astronomicheskaya observatoriya im. Engel'gardta Kazanskogo
gosudarstvennogo universiteta.

(Stars, Variable)

POLYAKOV, Yu.

All roads lead to Moscow. Sov.mor. 17 no.13:23 J1 '57. (MIREA 10:10)

1. Otvetstvennyy organizator Press-tsentr VI Vsemirnogo festivalya,
Moskva.

(Youth--Congresses)

KLOPOV, A.; POLYAKOV, Yu.

Relaxation oscillation generators using "cold" thyratrons. Radio no. 5: 56-58 My '57. (MLRA 10:6)

(Oscillators, Electron-tube)

POLYAKOV, Yu. A.

C1

Thermodynamics of exchange adsorption of potassium and ammonium ions in soils. Yu. A. Polyakov. *Kolloid. Zhur.*, 9, 439-46(1947).—For "3" soils the validity of the equation $K = x^2/(g - x)(b - x)$ is established; x is the amt. of K adsorbed by an NH₄ soil, g the exchange capacity, and b the amt. of K in the soln. before adsorption. K is 1.1-1.0 and almost independent of temp. (18-70°). As the exchange adsorption is a reversible phenomenon, from the value of K the heat content, the free energy, and the entropy of the process are calculated. L. J. Bikerman

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ASU-SLA METALLURGICAL LITERATURE CLASSIFICATION

E-7 * 12.43

SEARCHED		SERIALIZED		INDEXED		FILED	
SEARCHED	SERIALIZED	INDEXED	FILED	SEARCHED	SERIALIZED	INDEXED	FILED
SEARCHED	SERIALIZED	INDEXED	FILED	SEARCHED	SERIALIZED	INDEXED	FILED

KOLYAKOV, YU. A. K.

26478 voposu ob zffektivosti nekotorykh form azotistykh udobrnii na poliolistykh.
trudy vsesoyuz. nauchissled. In-ta udobreniy, agrotekhniki I agropochvovedeniya im.
Gedroitsa. Vysh. 29, 1949 c. 103-12 Bibliogr: 9 razv

SO: LETOPIS' NO. 35, 1949

POLYAKOV, YU. A.

26477 Vliyale tempatupy na obmen ibmen kaliva i ammoniya vpochakh. Trudy vsesoyuz
Nauch-issled in-ta ulobreniy, agrotekhniki I agropoch-vovedeniya im. Gedroytsa. vysh
29, 1949 c. 182-85

SC: LETOPIS' NO. 35, 1949

RELIBRARY, I.U.

26505 I danhenko, F. A. Ob effektivnosti udoreniy pod nekotorye zernovye kul'tury
an rodzolistykh pochvakh. Trudy vsesoyuz. Nauch-Issled. In-ta udobreniy, agrotekhniki
i. agropochvovedeniya im. G. G. Geiroytza, vyp. 29, 1949, c. 231-34

SO: LETOPIS' NO. 35, 1949

POLYAKOV, Yu. A

USSR/Agriculture - Heavy Water

Jul 53

"Possibility of a Toxic Effect of Heavy Water on Agricultural Plants," Yu. A. Polyakov, Lab of Phys Chem, Soil Inst im V. V. Dokuchayev, Acad Sci USSR

Pochov, No 7, pp 25-32

In lab expts with oats and barley it was found that heavy water and heavy hydrogen when contained in the nutrient medium, participated in the vital activity of the plants. D₂O had a neg effect on the growth and development of the plants, proportional to its

276TR

concn. This effect was most apparent when the concn exceeded 30-40%. The mechanism causing this neg effect, although it has not been adequately investigated, may be explained by the great physical inertness of heavy water. The article is illustrated by charts and graphs.

POLYAKOV, Yu. A.

The application of radiotritone method in the study of the exchange of ions of Ca and NH₄ in soils. Yu. A. Polyakov. *Pochvovedenie* 1955, No. 7, 69-70. Chernozem soil samples were satd. with NH₄ and Ca by using mixts. of CaCl₂ and NH₄Cl. The CaCl₂ contained tagged Ca⁴⁰. The specific activities of the solns. were detd. experimentally at the beginning and at the end of the reactions. The other data essential for detg. the equil. criteria were obtained by calcg. the equil. consts. with series of equations. The thermodynamic characteristics were detd. by utilizing the data of exchange consts. and their temp. relations. It is shown that the adsorption combination with Ca (and K) are thermodynamically more stable than with NH₄. J. S. Ioffe.

EMM
JUL

USSR/Soil Cultivation. General Problems.

J-1

Abs Jour: Ref. Zhur-Biologiya, No 1, 1958, 1194.

Author : Poljakov, Yu. A.

Inst :

Title : Problems of the "Contamination" of Soils and Agricultural Sowings by Products of Radioactive Disintegration (with a review of the major literary data).

Orig Pub: Pochvovedeniye, 1956, No 8, 57-73

Abstract: Many radioactive substances, falling upon soil in an undissolved form, cannot be removed even with application of large quantities of water. Decontamination of the products of nuclear fission in soils may be accomplished by ion exchange between elements of the absorbing complex and ions of the radioactive substances through precipitation and filtration and through leaching with

Card : 1/2

-1-

Card : 2/2

-2-

POLYAKOV, Yu. A.

USSR/Soil Cultivation. Physical and Chemical Properties of Soils. J-2

Abs Jour: Ref. Zhur-Biologiya, No 1, 1958, 1213.

Author : Polyakov, Yu. A.

Inst : Soil Science Institute of the Acad Sci USSR

Title : The Basic Criteria of Balance in Ion-Exchange Reactions in Soils.

Orig Pub: Trudy Pochv. in-ta AN SSSR, 1956, 51, 158-187.

Abstract: The study of balance in ion-exchange reactions in soils was conducted according to the example of exchange adsorption of ions: K^+ , NH_4^+ , Ca^{2+} . Samples of podzol soils and fertile chernozems were taken as adsorbents. After impregnation with ammonia ions a batch of air-dried soil was placed in flat-bottomed retorts and treated with 0.1 normal solutions of chlorides of K, NH_4^+ and Ca. Only the ion concentration of NH_4^+ was determined experimentally (in a balanced solution). Other data indispensable for determining the constant of balance were derived

Card : 1/3

-2-

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010017-2"
USSR/Soil Cultivation. Physical and Chemical Properties of Soils

Abs Jour: Ref. Zhur-Biologiya, No 1, 1958, 1213.

by calculation. The constant of balance was calculated by using Nikol'skiy's equation. Several series of experiments were conducted; in them the balanced distribution of ions between the hard and liquid phases, in relation to the nature of the exchanged ions, the characteristics of the soils, and the temperature conditions were investigated. The constant ionic strength of the solutions during the experiments was $I \geq 0.1$, and there were a sufficient number of repetitions with temperatures of $T_1 = 15^\circ$, $T_2 = 40^\circ$, $T_3 = 70^\circ$. The derived constants of balance of ion-exchange reactions in soils may be regarded as rather stable magnitudes, the reproducibility and reliability of which do not admit of any doubt. The absolute meanings of these constants depends upon the nature of the exchanged ions (and to a very minor degree upon the qualities of the soils). Upon exchange of ions of identical valences (NH_4^+ , K^+), the balance constant did not depend upon the temperature; with exchange of ions of varying valences (NH_4^+ , Ca^{2+})

Card : 2/3

-3-

USSR/Soil Cultivation. Physical and Chemical Properties of Soils. J-2

Abs Jour: Ref. Zhur-Biologiya, No 1, 1958, 1213.

the balance constant increased with rise in temperature, but rather insignificantly. The thermal effects of these reactions are insignificant.

Card : 3/3

-4-

Горбунов, Н. А.

USSR/Soil Sciences. General Problems.

J-1

Abs Jour : Ref Zhur - Biol., No 5, 1958, 20019

Author : Gorbunov, N.I., Polyakov, Yu.A.

Inst :

Title : Methods of Soil and Clay Mineral Studies Used in the
German Democratic Republic

Orig Pub : Pochvovedeniye, 1957, No 6, 112-114.

Abstract : No abstract.

Card 1/1

KLECHKOVSKIY, V.M., akademik, otvetstvennyy red.; ANTIPOV-KARATAYEV, I.N., akademik, otvetstvennyy red.; NICHIPOROVICH, A.A., doktor biol. nauk, otvetstvennyy red.; MEDVEDEV, Zh.A., kand. biol. nauk, red.; OGOLINETS, Ya.G., red.; POLYAKOV, Yu.A., kand. sel'skokhozyaystvennykh nauk, red.; SUKHOV, G.V., red.; SHIRSHOV, V.A., kand. sel'skokhozyaystvennykh nauk, red.; SHAROVATOVA, I.B., red. izd-va.

[Physiology of plants. Agricultural chemistry. Soil science; proceedings of the Conference on the Use of Radioactive and Stable Isotopes and Radiation in the National Economy and in Science] Fiziologija rastenij. Agrokhimija. Pochvovedenie; trudy Vsesoyuznoi nauchno-tehnicheskoi konferentsii po primeneniju radioaktivnykh i stabil'nykh isotopov i izlucheniij v narodnom khoziaistve i naуke. Moskva, Izd-vo Akad. nauk SSSR, 1958. 436 p. (MIRA 11:6)

1. Vsesoyuznaya nauchno-tehnicheskaya konferentsiya po primeneniyu radioaktivnykh i stabil'nykh isotopov i izlucheniij v narodnom khozyaystve i naуke. 1957.
2. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk im. V.I. Lenina (for Klechkovskiy).
3. Akademiya nauk Tadzhikskoy SSR (for Antipov-Karatayev).
(Botany—Physiology) (Agricultural chemistry) (Soils)

GORBUNOV, N.I.; SOKOLOV, A.V.; POLYAKOV, Yu.A.

At the Conference of soil scientists of the Polish People's Republic.
Pochvovedenie no.2:115-116 F '59. (MIRA 12:3)
(Poland--Soil research)

5(

SOV/69-21-2-16/22

AUTHOR: Polyakov, Yu.A.

TITLE: On the Sorption of Strontium and Calcium Ions by Soils (O pogloshchenii ionov strontsiya i kal'tsiya pochvami)

PERIODICAL: Kolloidnyy zhurnal, 1959, Nr 2, pp 221-225 (USSR)

ABSTRACT: The author studied the exchange adsorption of strontium and calcium ions on soils and clays with the aid of radioactive isotopes. He determined the basic equilibrium criteria and calculated the main thermodynamic functions (H_{298} , F_{298} , S_{298}). The numerical values H, F, S bear witness to the isbenergetic character of the reaction. They also show that the adsorption compound soil-Sr, thermodynamically appears more stable than the compound soil-Ca. The obtained results were used for the calculation of the most probable value of the Sr^{90} discrimination coefficient in the system soil-plant. In all cases, the coefficient was 1 and varied from 0.8 to 0.9. The author expresses his gratitude to I.N. Antipov-Karatayev for his collaboration.

Card 1/2

SOV/69-21-2-16/22

On the Sorption of Strontium and Calcium Ions by Soils

There are 19 references, 11 of which are English and 8 Soviet.

ASSOCIATION: Pochvennyy institut AN SSSR im. V.V. Dokuchayeva, Moskva
(Soil Institute of the AS USSR imeni V.V. Dokuchayev,
Moscow)

SUBMITTED: January 16, 1959

Card 2/2

POLYAKOV, Yuliy L'vovich; TSYGANOV, Aleksandr Stepanovich; CHERNYAKOVA, I.Z.,
inzh., red.; FREGER, D.P., red. izd-va; BELOGUROVA, I.A., tekhn.
red.

[Making dies for cold stamping from plastics on an epoxy resin
base] Izgotovlenie shtampov dlja kholodnoi shtampovki iz plasti-
cheskikh mass na osnove epoksidnykh smol. Leningrad, 1960. 14 p.
(Leningradskii Dom nauchno-tehnicheskoi propagandy. Obmen peredovym
opytom. Seriya: Kholodnaia shtampovka, no.8) (MIRA 14:8)
(Dies(Metalworking)) (Plastics--Molding)

FATEYEV, Aleksandr Vasil'yevich, doktor tekhn.nauk, prof.; OLEYNIKOV, Viktor Alekseyevich, kand.tekhn.nauk, dotsent; ZOTOV, Nikolay' Sergeyevich, assistant; PÓLYAKOV, Iuriy Andreyevich, inzh.

System for the stabilization and regulation of the speed of a d.c. motor using a tachometer generator. Izv. vys. ucheb. zav.; elektromekh. 3 no.12:58-64 '60. (MIRA 14:5)

1. Zaveduyushchiy kafedroy avtomatiki i telemekhaniki Leningradskogo elektroteknicheskogo instituta (for Fateyev). 2. Leningradskiy elektroteknicheskiy institut (for Oleynikov). 3. Kafedra avtomatiki i telemekhaniki Leningradskogo elektroteknicheskogo instituta (for Zotov, Polyakov).

(Electric motors, Direct current)

POLYAKOV, Yu.A.; GERMOCENOVA, N.S.

Applying interferometry in agrochemical investigations of soil.
Pochvovedenie no.12:102-107 D '60. (MIRA 14:1)

1. Pochvennyy institut imeni V.V. Dokuchayeva AN SSSR.
(Soils--Analysis) (Interferometry)

POLYAKOV, Yu.A.; MIT'KINA, Ye.A.; ATENKOV, S., tekhn. red.

[Method for studying heat transfer in a short-duration process
in gas dynamis; Conference on Heat and Mass Transfer, Minsk,
January 23-27, 1961] Metod izuchenija teploobmena v kratko-
vremennom gazodinamicheskem protsesse; soveshchanie po teplo-i
massoobmenu, g. Minsk, 23-27 janvaria 1961 g. Minsk, 1961. 17 p.
(MIRA 15:2)

(Heat—Transmission) (Gas dynamics)

BLINOV, V.P.; LEL'CHUK, V.S., nauchnyy sotr.; ROGACHEVSKAYA, L.S., nauch.sotr.;
POLYAKOV, Yu.A., otv.red.; KIND,T.B., red.izd-va; GUS'KOVA,O.M.,tekhn.red.

[Those who are at the forefront; an account on the movement for communist labor in the Oktyabr'skiy District of Moscow] O tekhn, kto idet vpered; rasskaz o dvizhenii za kommunisticheskii trud v Oktiabr'skom raione Moskvy. Moskva, Izd-vo Akad. nauk SSSR, 1961. 94 p.

(MIRA 14:11)

1. Zaveduyushchiy otdelom propagandy i agitatsii Oktyabr'skogo rayon-nego komiteta Kommunisticheskoy partii Sovetskogo Soyuza (for Blinov).
2. Institut istorii AN SSSR (for Lel'chuk, Rogachevskaya).
(Moscow—Efficiency, Industrial).

POLETAYEV, Vladimir Yevgen'yevich; POLYAKOV, Yu.A., otd.red.; ZOMBE, Ye.B., red.izd-va;
ZAV'YALKIN, N.P., red. izd-va; YEPIFANOVA, L.V., tekhn.
red.

[On the road to a new Moscow; the beginning of the modernization
of the capital, 1917-1935] Na putiakh k novoi Moskve;
nachalo rekonstruktsii stolitsy, 1917-1935. Moskva, Izd-vo
Akad.nauk SSSR, 1961. 168 p. (MIRA 15:1)

(Moscow—City planning)
(Moscow—Construction industry)

29616
S/120/61/000/004/021/034
E032/E514

24.6800
26.4100

AUTHORS: Polyakov, Yu.A. and Mit'kina, Ye. A.

TITLE: A thin-film resistance thermometer

PERIODICAL: Pribory i tekhnika eksperimenta, 1961, No. 4,
pp.140-142

TEXT: Thin metal films can be used as resistance thermometers whenever it is required to study heat transfer in processes where the duration of the experiment is of the order of some tens of microseconds. The present authors report that they have obtained good results with a thin film deposited on a glass surface by heating the platinum residue which appears during intensive heating of chloroplatinic acid. This was done by coating the glass with a special paste having the following composition (by weight): chloroplatinic acid 22%, lavender oil 43.5%, turpentine 12.5%, dehydrated alcohol 22%. The procedure adopted was as follows. The glass base (5A-1 (BD-1) glass) was first heated in a gas flame. The surface was then cleaned with benzene and alcohol and the paste was brushed onto it. The base was then heated again in a gas flame until a shiny metal residue appeared. The resulting

Card 1/3

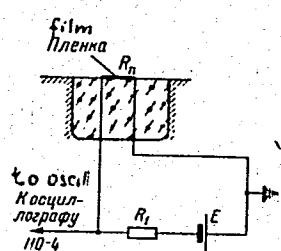
A thin film resistance thermometer

29610
S/120/61/000/004/021/034
E032/E514

The English-language references read as follows: Ref.2: Y.G.Naik,
E. M. Balsara, Indian J. Phys., 1957, 31, 12, 62; Ref.3: W.H.Giedt,
Jet propulsion, 1955, 25, 4, 25.

ASSOCIATION: Energeticheskiy institut AN SSSR (Power Institute
AS USSR)

SUBMITTED: December 24, 1960



Card 3/3

Fig.1

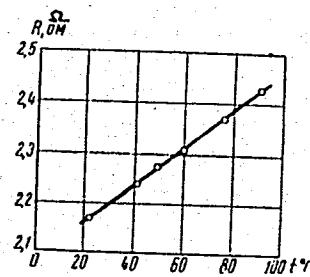


Fig.2

S/598/61/000/005/005/010
D040/D113

AUTHORS: Polyakov, Yu.A., and Baryshnikov, N.V.

TITLE: The interaction of titanium tetrachloride with the components of titanium-containing slags in molten chlorides

SOURCE: Akademiya nauk SSSR. Institut metallurgii. Titan i yego splavy, no. 5, Moscow, 1961. Metallurgiya i khimiya titana, 143-147

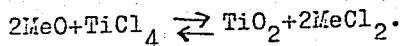
TEXT: No data exist in literature on the reactions between $TiCl_4$ and bath components in the process of titanium slags chlorination in molten chlorides, and the purpose of the described experiments was to find out the reactions for proper control of the process. The experiments consisted in blowing liquid $TiCl_4$ and argon through a melt of 200 g equimolecular mixture of sodium and potassium chlorides mixed with 20 g of titanium slag, consisting of (%) 70.44 TiO_2 , 4.9 CaO, 7.5 MgO, 5 Al_2O_3 , 2.86 Fe_2O_3 , 5.4 SiO_2 , 0.14 V, 3.76 other elements, and 4 g of petroleum coke. The reaction vessel was a quartz tube. $TiCl_4$, evaporated in the tube, was mixed 50:50% with argon and forced through the melt held at 750°C. The volatile reaction products and $TiCl_4$

Card 1/3

S/598/61/000/005/005/010
D040/D113

The interaction of titanium ...

left over after reaction, were trapped in a cooling and absorbing system with sulfuric acid solution. The melt was dissolved in 0.01 N hydrochloric acid, and the sediment filtered and analyzed. The slag components were obviously intensively chlorinated by $TiCl_4$, and the reaction was apparently



The high content of $TiCl_4$ in the melt was higher than that which could possibly be formed on account of dissolved $TiCl_4$, and it is supposed that the reaction products are mainly titanium oxychlorides $TiOCl_2$, $Ti_2O_3Cl_2$, and Ti_2OCl_6 . Experiments were also conducted without the use of carbon, and the chlorination of TiO_2 in this case was less intensive than in the presence of carbon, though carbon apparently did not considerably affect the chlorination of other oxides. Conclusions: (1) $TiCl_4$ intensively chlorinates the slag components in molten chlorides of alkaline metals, with the formation of titanium dioxide and chlorides of the metals. (2) Titanium dioxide, in its turn, reacts with $TiCl_4$ with the formation of tetravalent oxychlorine

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The interaction of titanium ...

S/598/61/000/005/005/010
D040/D113

compounds which are soluble in the melt; (3) The products of reaction of TiO_2 with $TiCl_4$ in the presence of a solid carbonic reducing agent are tetravalent and trivalent titanium compounds which are soluble in the melt. There are 2 figures and 1 table.

Card 3/3

POLYAKOV, Yu.A.; MIT'KINA, Ye.A.

*Thin-film resistance thermometer. Prib. i tekhn. eksp. 6 no.4:
140-142 Jl-Ag '61.* (MIRA 14:9)

1. Energeticheskiy institut AN SSSR.
(Thermometers)

POLYAKOV, YU. A. and MIT'KINA, YE. A.

"Method of studying heat-exchange in transitory gasodynamic process."

Report presented at the 1st All-Union Conference on Heat- and Mass- Exchange,
Minsk, BSSR, 5-9 June 1961

POLYAKOV, Yu.A.; GEMOGENOVA, I.S.; TUSHINSKAYA, R.A.; USPENSKAYA, A.A.

Using heavy water for determining the percolation coefficient
of soils in the Darwin Preserve. Trudy DGZ no.7:87-99 '61.

(Darwin Preserve—Soil percolation) (Deuterium oxide)
(MIRA 16:2)

POLYAKOV, Yu.A.; GEMOGENOVA, N.S.

Translocation of heavy water in plants. Trudy DGZ no.7:137-
145 '61. (MIRA 16:2)
(Birch) (Deuterium oxide) (Plants, Motion of fluids in)

POLYAKOV, Yu.A.; KUTOVA, T.N.; LEONT'YEV, A.M.; SERGACHEVA, I.A.

Radioactivity of plants in the Darwin State Preserve; data for
1958-1959. Trudy DGZ no.7:147-173 '61. (MIRA 16:2)
(Darwin Preserve--Plants--Chemical analysis)

POLYAKOV, Yu.A.; LEONT'YEV, A.M.; MEL'NIKOV, L.K.

Concerning Sr⁹⁰fallout in the middle latitudes of the U.S.S.R.
Pochvovedenie no.11-45-50 N '62. (MIRA 16:1)
(Radioactive fallout) (Strontium--Isotopes)

S/385/62/000/000/030/035
D234/D308

AUTHORS: Makarov, Yu. V. and Polyakov, Yu. A.

TITLE: Investigation of the effect of thermal and electrical phenomena on the measurement of heat exchange in a shock tube

SOURCE: Akademiya nauk SSSR. Energeticheskiy institut. Fizicheskaya gazodinamika, teploobmen i termodinamika gazov vysokikh temperatur. Moscow, Itd-vo AN SSSR, 1962, 261-269

TEXT: The authors analyze the possible sources of error in the use of a film transducer at $p = 0.76$ mm Hg. Thermal sources of error (accumulation of heat energy in the film owing to heat exchange, decrease of temperature of the film during the experiment, heating of the film by the measuring current, thermal emission) are investigated theoretically. Experiments were carried out on: distortion of the signal due to shunting of the resistance of the film by a conducting medium, induction of a current in the film, adhesion of ions to the film, additional signals due to photoemission. It is

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Investigation of the effect ...

S/885/62/000/000/030/035
D234/D308

found that the measurements are most affected by electrical conductivity of the gas. There are 10 figures.

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REZNIKOV, I.L.; POLYAKOV, Yu.A.; SOLOV'YEV, Yu.V.; PEREVOZOV, V.N.

Chlorine binding from gases of magnesium production in the
combustion of a hydrogen-bearing fuel spray. Tsvet.met. 35
no.8:49-53 Ag '62. (MIRA 15:8)
(Magnesium-Metallurgy) (Chlorine)

S/078/63/008/004/013/013
A059/A126

AUTHORS: Dembovskiy, S.A., Yegorov, B.N., Pashinkin, A.S., Polyakov, Yu.A.

TITLE: The problem of the phase transition of the second type with SnSe

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 8, no. 4, 1963, 1,025 - 1,026

TEXT: In connection with the systematic study of the phase diagrams of the Sn - Se and SnSe - As_2Se_3 systems, tin selenide was investigated using differential thermal analysis and x-ray photography in the region of second-type transition. Sn and Sb were melted in a stoichiometric ratio in evacuated quartz flasks, and thermograms were taken with a pyrometer of the type ФПК-55 (FPK-55). A differential temperature peak was observed on the thermograms of SnSe with an extreme value at 540°C corresponding to the λ -point. No marked structural modifications of SnSe were established in the second-type transition region. The applicability of the Grüneisen law to second-type phase transitions has been shown on the example of SnSe. It has been further shown that the correlation of electric parameters (Hall resistance R) and thermal properties (thermal volume

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The problem of the phase transition of the

S/078/63/008/004/013/013
A059/A126

expansion coefficient, specific heat) is possible, and it is assumed that second-type phase transitions are also possible in the isostructural analogues of tin selenide, namely GeS, GeSe, and SnS. There are 2 figures.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii im. N.S. Kurnakova Akademii nauk SSSR (Institute of General and Inorganic Chemistry imeni N.S. Kurnakov of the Academy of Sciences USSR)

SUBMITTED: August 16, 1962

Card 2/2

L 20072-65 EWP(m)/ENG(v)/EWA(h)/EWT(1)/FCS(k)/EWA(1) Pd-1/Pe-5/Pt-4 AEDC(a)/
AEDC(b)/SSD/SSD(5)/ESD/AFWL/ASD(f)-3/AS(mp)-2/ASD(p)-3/AFETH/ESD(gs) MLK
ACCESSION NR: AT4048012 S/0000/64/000/000/0100/0103

AUTHOR: Polyakov, Yu. A.

TITLE: Calculation of thermal currents during gas flow in a shock tube

SOURCE: AN SSSR. Energeticheskiy institut. Fizicheskaya gazodinamika i svoystva
gazov pri vysokikh temperaturakh (Physical gas dynamics and properties of gases at
high temperatures), Moscow, Izd-vo Nauka, 1964, 100-103. *B73*

TOPIC TAGS: gas dynamics, thermal current, shock wave, shock tube, heat transfer

ABSTRACT: Heat transfer to the wall of a shock tube may be considered as a one-dimensional process because of the short times involved in shock-wave experiments, and it is well known that thin-film resistance thermometers may be used to measure accurately the temperature of the walls during the fast processes which occur. The present author studied the complex problem of heat flow when the temperature of the surface is a function of time, beginning with the approximation of a polygonal body using Keller and Ryan's approximation. It is shown that the change in temperature of the wall can be represented by a power-law. The general case is treated by an operational method using a Laplace transformation and a formula is derived for the maximum temperature

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L 20072-65

ACCESSION NR: AT4048012

reached assuming the heat transfer coefficients to be known. Orig. art. has: 2 figures
and 7 equations.

ASSOCIATION: Energeticheskly institut AN SSSR (Power Engineering Institute,
AN SSSR)

SUBMITTED: 06Mar64

ENCL: 00

SUB CODE: TD, ME

NO REF SOV: 002

OTHER: 005

Card 2/2

ACCESSION NR: AP4038431

S/0294/64/002/002/0170/0175

AUTHORS: Makarov, Yu. V.; Polyakov, Yu. A.

TITLE: Method of measuring heat fluxes in a plasma

SOURCE: Teplofizika vysokikh temperatur, v. 2, no. 2, 1964, 170-175

TOPIC TAGS: plasma heating; discharge plasma, shock wave propagation, heat exchange, thermal calorimetry

ABSTRACT: After listing the limitations of other methods, the authors demonstrate the feasibility of using a thin copper wire with glass insulation as a pickup, suitable for short-duration processes, for the measurement of heat flow from a plasma in the temperature range 3,000--20,000K. Among the advantages claimed for the pickup construction is the ease with which a wire-wound resistance can be manufactured (compared with a film resistance), the possibility of using thicker and stronger insulation, the lack of a substrate to

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ACCESSION NR: AP4038431

serve as a heat accumulator, and the possibility of using various structural shapes (linear, circular, bifilar, etc.). A heat-exchange experiment with these pickups is described, using apparatus previously reported (Zh. tekhn. fiz. v. 33, No. 6, 724, 1963). The plasma was produced by discharging a 600 μ F capacitor bank at 5 kV. The pickup was made of 15-micron wire covered with glass insulation 5 microns thick. The calibration of the thermometer is described. The results of the heat flux measurements with the aid of the cylindrical wire agreed with the assumption that the plasma is produced by a shock wave moving with velocity 9×10^5 cm/sec. The calculated parameters behind the shock were $T_2 = 8,000^\circ\text{K}$, $p_2 = 0.27$ atm. and $\zeta_2 = 0.6 \times 10^{-5}$ g/cm³. While the experiment described does not solve the heat exchange problem completely, yielding merely information on the parameters and structure of the flow in a magneto-hydrodynamic tube, it is concluded that the method can be used to determine the energy losses of a plasma generated in pulsed appara-

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ACCESSION NR: AP4038431

tus. "The authors are grateful to A. S. Predvoditelev for interest in the work." Orig. art. has: 3 formulas and 3 figures.

ASSOCIATION: Energeticheskiy institut im. G. M. Krzhighanovskogo
(Power Institute)

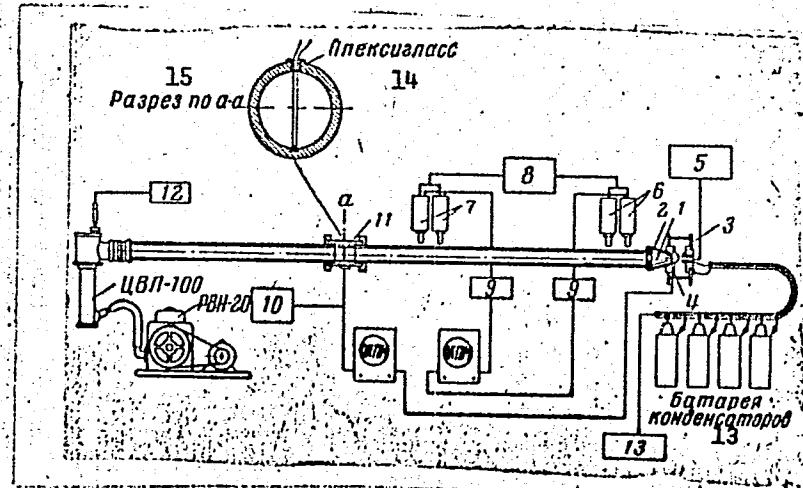
SUBMITTED: 06Aug63 DATE ACQ: 09Jun64 ENCL: 04

SUB CODE: ME NR REF SOV: 003 OTHER: 001

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ACCESSION NR: AP4038431

ENCLOSURE: 01



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ACCESSION NR: AP4038431

ENCLOSURE: 02

Block diagram of experimental setup

1 - discharge chamber, 2 - return lead, 3 - discharge gap, 4 - loop, 5 - initiating block, 6 - photocells measuring the front velocity, 7 - photomultipliers measuring the front velocity, 8 - photomultiplier supply block, 9 - linear mixer, 10 - resistance thermometer supply, 11 - section with resistance thermometer, 12 - vacuum meter, 13 - capacitor bank, 14 - Plexiglas, 15 - section a-a

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